

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
23 June 2005 (23.06.2005)

PCT

(10) International Publication Number
WO 2005/056028 A1

(51) International Patent Classification⁷: **A61K 35/78**,
35/74, A23L 1/03, 1/30, 1/305, A23C 9/123, 9/127, 9/13

(21) International Application Number:
PCT/BG2004/000025

(22) International Filing Date:
10 December 2004 (10.12.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
108449 15 December 2003 (15.12.2003) BG

(71) Applicants and

(72) Inventors: PENEVA, Daniela, Petrova [BG/BG]; ul.
Kostenski Vodopad No 1A, vh. A, ap.15, Sofia (BG).
ALEXANDROV, Nikola, Georgiev [BG/BG]; ul. Bo-
gatitza No 9, ap. 2, Sofia (BG).

(74) Agent: NESHEVA, Valentina; 20, Dimitar Manov Str.,
1408 Sofia (BG).

(81) Designated States (*unless otherwise indicated, for every
kind of national protection available*): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(84) Designated States (*unless otherwise indicated, for every
kind of regional protection available*): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

— *of inventorship (Rule 4.17(iv)) for US only*

Published:

— *with international search report*

*For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.*

(57) Title: A SYMBIOTIC PRODUCT AND ITS APPLICATION AS A CARRIER OF NATURAL BIOACTIVE SUBSTANCES
IN FUNCTIONAL FOOD ADDITIVES

(57) Abstract: It used as carrier of bioactive substances of natural origin like dry herb extracts or combinations thereof, other veg-
etable products as essential oils, fruit concentrates, animal products as bee products, added to vitamins combinations, said product
ensuring bacteria proliferation and growth when stored and after intake. The bioactive products can be stored for period 2 to 3 years
without the probiotic losing its activity. In the gastrointestinal tract they can colonize supplying the body with useful substances
resulting from their metabolism ensuring fast transportation of bioactive substances to body's cells. It contains low-lactose sour-milk
product, low-lactose hydrolyzate with more than 95% degraded milk casein, saccharose, pectin, full-cream or skimmed low-lactose
cow's milk fermented using selected strains of *Lactobacillus delbrueckii subsp. bulgaricus*, and additionally lyophilized monoculture
of *Lactobacillus delbrueckii subsp. bulgaricus* or lyophilized mixture of monocultures of *Lactobacillus bulgaricus*, *Lactobacillus*
acidophilus, *Streptococcus thermophilus*, *Lactobacillus lactis* and dextrose.